

Community Fact Sheet

Orphan Mine Site

National Park Service
U.S. Department of the Interior

Grand Canyon National Park



A SITE HISTORY...

The Orphan Mine Site is located on and below the South Rim at Grand Canyon National Park. The Site is approximately two miles northwest of the South Rim Village, between Maricopa Point and the Powell Memorial. The Park's Rim Trail, which traverses approximately twelve miles of the South Rim of the canyon, detours around the Orphan Mine property.

The Orphan Mine Claim, sometimes referred to as the Orphan Lode Mine or the Lost Orphan Mine, was filed in 1893 and patented in 1906. The property was surveyed as containing 20.26 acres of land extending from approximately 500 feet south of the South Rim to approximately 1,100 feet below the South Rim. During the early decades of the 20th century, periodic mining operations were conducted at the Orphan Mine, deriving copper and other precious metals from the workings. In 1951, geologists determined there were high-grade uranium deposits present at the Orphan Mine Site.

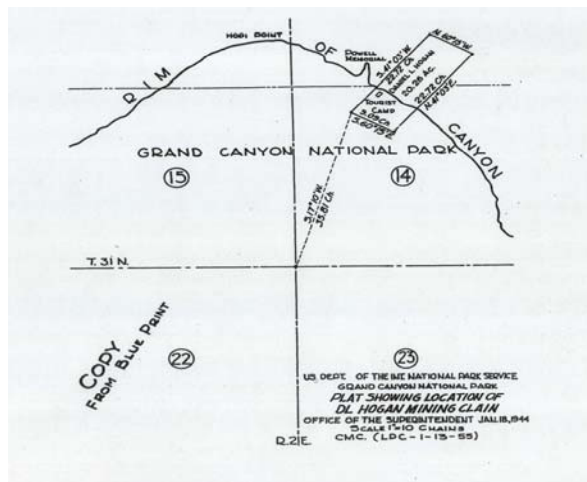
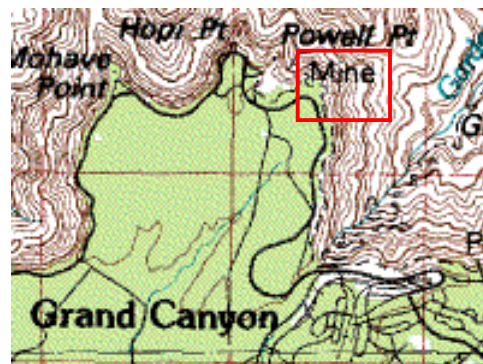
In 1953, a private mining company began leasing the mineral rights to the property, and in 1956 the company purchased both the mineral rights and the surface rights. The mining company built many structures to support its mining activities, including a three-tower aerial tram system for hauling ore

from the lower mine area to the upper mine area on the South Rim. In 1959, the mining company replaced the tram with a hoisting shaft in order to increase production. The hoist included an 80-foot-high steel headframe which remains on the South Rim and a crosscut from the shaft to the main ore deposit at a depth of approximately 1,500 feet below the South Rim.

In 1962, Congress authorized the Secretary of the Interior to accept title to the Site. Site mining activities were required by the 1962 legislation to terminate no later than 1987. Mine production ceased in 1969. The National Park Service has determined that the Site may be eligible for listing in the National Register of Historic Places.

AND NOW...

Currently, mine wastes are present at the upper and lower mine areas as well as on the steep slope down the canyon along the path of the old tram structure (the middle mine area). The upper mine area is fenced with both a chain link metal fence and a temporary outer fence to protect park visitors from any potential exposure to radiation or other mine waste contaminants. In addition, signs have been posted in the Horn Creek drainage warning the public not to drink the water in Horn Creek due to potentially hazardous levels of radioisotopes. The lower and middle mine areas are inaccessible to park visitors. The most notable feature of the lower mine area is a large "glory hole" which is visible from Maricopa Point.



ENVIRONMENTAL INVESTIGATIONS...

The National Park Service has performed environmental investigations to evaluate the extent of radioactive materials and other hazardous substances associated with past mining activities. These investigations focused on the upper and lower mine areas and indicated some areas of elevated radiation levels and other hazardous substance contamination. Further evaluation of the Site pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is underway to determine the full nature and extent of Site contamination and to analyze cleanup alternatives.



THE NEXT STEP...

Community involvement is an important factor in the CERCLA process. The public will have the opportunity to be involved in reviewing and commenting on Orphan Mine Site investigation and proposed cleanup documents. The initial administrative record file, which contains documents upon which the selection of Site cleanup action will be based, has been established and is available for public review at the following two locations:

Grand Canyon National Park
Museum Collection Office
Corner of Albright Street and Center Road
Grand Canyon, Arizona 86023
Contact: Colleen Hyde
Phone: (928) 638-7769
Mon.-Fri. 8:00 a.m. – 5:00 p.m.
Please contact Colleen Hyde to access
this repository.

National Park Service
1050 Walnut Street, Suite 220
Boulder, Colorado 80302
Contact: Shawn P. Mulligan
Phone: (303) 415-9014
Mon.-Fri. 9:00 a.m. – 4:00 p.m.

An Engineering Evaluation/Cost Analysis (EE/CA) should commence for the upper mine area in 2006. This EE/CA will analyze both the necessity for cleanup action and the effectiveness, feasibility, and cost of a number of cleanup alternatives. Once completed, the EE/CA (including any recommended cleanup) and supporting documents will be made available to the public in the administrative record file for review and comment. An EE/CA for the lower and middle mine areas will also be conducted.

FOR MORE INFORMATION...

If you have questions concerning the information contained in this fact sheet, please contact John Beshears, Grand Canyon National Park at (928) 638-7730, or Shawn P. Mulligan, National Park Service at (303) 415-9014.

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